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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,962	09/27/2001	Craig Paulsen	29757/P-577	2536

4743 7590 04/26/2004

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EXAMINER

MARKS, CHRISTINA M

ART UNIT PAPER NUMBER

3713

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary****Application No.**

09/964,962

**Applicant(s)**

PAULSEN ET AL.

**Examiner**

C. Marks

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 27-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

The objection to claims 20-22 has been withdrawn due to the cancellation of the claims and the correction of the matter in corresponding claims in the amendment filed 12 February 2004.

### ***Drawings***

The draftsmen previously objected to the drawings filed 27 September 2001 and it does not appear that the drawings have hence been corrected. Corrected drawings, in accordance with merits of the objection, are required in response to this office action in order to avoid abandonment. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The rejection of claims 13-26 has been withdrawn due to the cancellation of the claims in the amendment filed 12 February 2004. Further, the Examiner thanks the Applicant for the addition of clarity to the language in the amended claims 27-40 describing the angle formed by the endpoints. The language serves to define the invention in a manner that is no longer indefinite; therefore, the rejection is moot.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 27 and 33 are rejected under 35 U.S.C. 103(a) as being anticipated by Griswold et al. (US Patent No. 6,027,115).

Griswold et al. disclose a gaming apparatus in the form of a slot machine comprising a housing (FIG 1, reference 12), a value input device (FIG 1, reference 22 and 24), an input device to allow the player to make a wager (FIG 1, reference 20), a slot machine reel rotatable about an axis having an outer circumferential region (Column 4, lines 53-57). A motor is used to drive the wheels (Column 6, lines 15-16).

The gaming apparatus also includes a flexible display in the form of a reel strip (Column 3, lines 39-42; FIGs 2) that allows the reel strip to be bent from a substantially straight configuration to a curved configuration (FIG 4A and FIG 2). A skilled artisan understands this strip has elastic properties as it is changed from a straight to a curved configuration when placed about the reel. The Examiner also maintains that a skilled artisan also understands that if so desired, the strip could be taken off the reel and would no longer be in the same position as it is when it is attached to the reel, thus it returns more towards its original position.

This curved configuration is capable of contacting the outer circumferential region of the reel at two points (FIG 3A). While the exact angular displacement is not disclosed, it would have been obvious to one of ordinary skill in the art that for the strip to function in a gaming reel of a round configuration as disclosed, the displacement would be about or at least ninety

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degrees between the points to provide adequate contact and thus support for the reel.

However, such a displacement would be a choice of the designer in order to properly adhere the reel strip to the reel and would have been obvious to adapt. Likewise, one of ordinary skill in the art would understand that for the reel to serve the purpose as disclosed, it should contact the wheel at a displacement, such as ninety degrees, to properly support both sides of the strip with the least amount of contacts. One of ordinary skill in the art would be motivated to use this displacement in order to provide the most contact support with the least amount of contact points, which would be understood of a ninety degree displacement to an ordinary artisan.

The display is adapted to display indicia to the player (FIG 4A). The display of the indicia is controlled by the processor (Column 9, lines 38-42).

The gaming apparatus also includes a slip ring drum rotatable about the axis of the reel where the slip ring drum includes a plurality of electrical conductors including electrically conductive brushes (Column 6, lines 13-23). The game apparatus also includes a processor that controls both the light source elements and the gaming outcome (Column 9, lines 24-26). It is notoriously well known in the art that in a gaming machine the processor has a memory, is in control of detecting deposits and wagers, determines the indicia to be displayed, controls the motor to spin and stop the wheels, and to determine a value associated with an outcome and hence to pay a player.

Claims 28, 31, 32, 34, 36-38 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griswold et al. (US Patent No. 6,027,115) in view of Acres et al. (US Patent No. 6,008,784) in view of Universal Display: FOLED Technology.

What Griswold et al. disclose has been discussed above and is incorporated herein.

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Griswold et al. do not disclose the flexible display is programmed to dynamically change the indicia; the flexible display is an LED.

Acres et al. disclose a flexible display that is adapted for use in a casino environment wherein the display includes a plurality of LEDs arranged to form a face around that which is curved about a horizontal axis (Column 1, lines 43-47) in the form of a mechanical odometer (Column 2, lines 27-29) to display numerals in different colors (Column 2, lines 40-44). A display drive circuit is coupled to the elements to display a visual image on the face (Column 1, lines 46-48). This display driver circuit is the controller used to cause the indicia to be displayed. The lights are selectively illuminated to form a visual image to display a series of numerals (Column 2, lines 25-35) thus the display can dynamically change. Acres et al. disclose that the use of such a flexible, curved, and dynamic display is advantageous in that it can attract the attention of customers (Column 1, lines 28-30). The device of Acres et al. includes a number of LEDs in a flexible substrate to be used as light. It would be obvious to the system of Acres et al. that that which is to be displayed is stored in memory. One of ordinary skill in the art would understand this would be done to allow the display driver to access that which needs to be displayed.

Universal Display Corporation: FOLED Technology discloses that it is advantageous to substitute the use of normal LEDs with the FOLED technology. Motivations for doing so include the flexibility of FOLED, the ultra-lightweight, thin-form, as well as the cost-effective processing.

The usage of one flexible display over another would have been an obvious design choice to one of ordinary skill in the art based upon the desired functionality for the machine as defined by the designer. One of ordinary skill in the art would thus find it obvious to substitute the FOLED technology over that disclosed in Griswold in view of Acres. Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the dynamic FOLED format

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into the flexible display as disclosed by Acres et al. One of ordinary skill in the art would be motivated to make this design choice and substitution in order to provide a more efficient, flexible, and cost effective means to display information. One would be motivated to incorporate FOLED as cost would be reduced as FOLED is less breakable, more impact resistance as well as more cost-effective to produce. Moreover, one would be motivated to incorporate the FOLED and Acres et al. into the apparatus of Griswold et al. Both are drawn to a flexible display based upon a curved face around a horizontal axis. One would be motivated to make this incorporation in order to attract a greater number of consumers to use the machine, as more attention would be drawn by the dynamically changing display as taught by Acres et al. and thus more revenue would be drawn for the casino.

Claims 29, 30, 35 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griswold et al. (US Patent No. 6,027,115) in view of Acres et al. (US Patent No. 6,008,784) in view of Universal Display: FOLED Technology further in view of Business Week 2000: The Tube.

What Griswold et al., Acres et al., Universal Display, disclose, teach, and/or suggest has been discussed above and is incorporated herein.

Griswold et al., Acres et al., and Universal Display do not disclose the use of an LCD as the means for flexible display.

However, the Tube, as disclosed by Business Week is a flexible form LCD that can be bent and used in both a substantially straight and curved configuration and allows dynamically changing indicia to be displayed.

The usage of one flexible display over another would have been an obvious design choice to one of ordinary skill in the art based upon the desired functionality for the machine as

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defined by the designer. One of ordinary skill in the art would thus find it obvious to substitute the flexible LED technology over that disclosed by FOLED. The use of a flexible LCD over a FOLED would be merely a design choice as both present advantages to their use. A motivation to one of ordinary skill in the art to use a flexible LCD over a FOLED is that LCD is known to consume very little power and thus would save the casino money in the electricity required to run the machine. Hence, the use of a flexible LCD over a FOLED would have been obvious to one of ordinary skill in the art.

### ***Response to Arguments***

In response to the Applicant's argument that the Examiner is not using the meaning that would be used by those of ordinary skill in the art, the Examiner respectfully disagrees. The Examiner believes the presented definition of elastic is read as it would be interpreted by one of ordinary skill in the art. The Examiner does not necessarily agree that one of ordinary skill in the art would exclusively interpret the term "elastic" to mean capable of returning to an initial form. The Examiner maintains that a skilled artisan would reasonably also understand the meaning of elastic to be capable of change or a variety of circumstances, thus the reel strip is elastic in that it is changed from a straight to a curved configuration when placed about the reel. The Examiner maintains it is unreasonable to limit the definition of elastic as presented by the Applicant, as it would not be the only interpretation of a skilled artisan and thus doing so is improper. The Examiner has addressed above the elasticity in terms of Goldberg and how a skilled artisan would understand the elastic properties of Goldberg.

Regarding Applicant's argument that Griswold is not elastically bent, the Examiner respectfully disagrees as detailed above. Further, the Examiner also maintains the method in which it is attached to the reel, in relation to ninety degrees, is a design choice, motivated and made obvious as discussed above. The Examiner has provided motivation and suggestion as



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to why a skilled artisan would bend the strip around the reel in such a manner and is not convinced by the arguments and examples presented by the Applicant as to why the applicant believes Griswold may not *necessarily* make this angle.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the Examiner provided reasons and motivations as to why one of ordinary skill in the art may look to other references to improve on Griswold.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The motivations cited by the Examiner are well-known facets and properties of the materials and systems and are recognizable by a skilled artisan and thus are not gleaned from the Applicant's disclosure.

In response to the Applicants arguments regarding the reasons for combination of reference, the Examiner maintains that there is proper motivation. The disclosure of FOLED as a flexible material would indeed suggest to one of ordinary skill in the art the use of such a display in Griswold and Acres. Because Griswold and Acres already disclose flexible displays,

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one of ordinary skill in the art would merely find it a design choice to substitute other types of flexible displays as the type of actual display used would be a design choice to a system already embodied to support flexible displays. The motivation for this, as with any design choice, would be that of the designer who is inspired by the needs, wants, and desires for their system. For example, a skilled artisan would be more motivated to use a flexible substrate such as FOLED for the reasons and motivations detailed above. Design is a choice. It is known in the art that a designer has intrinsic motivation in designing their system and using one design over another is thus motivated by these needs and wants.

In response to the arguments about the motivation of weight reduction, the Examiner also maintains that there is proper motivation. While Acres and Griswold only disclose slot machines, they most certainly could be embodied in tabletop slot machines, as the structure embodying them is not that which is important to the disclosure. Therefore in tabletop machines, weight reduction would be an issue as such machines typically must be carried and set up by the owner and thus reducing any weight would be beneficial. While the Applicant argues the change would be minimal, the Examiner maintains that it is still a consideration that can intrinsically motivate a designer who is specializing in tabletop machines. It may not be the primary consideration, but that does not negate it from being a consideration at all. The Examiner maintains that a skilled artisan would consider weight of a machine, albeit not in the magnitude of other considerations, and still be motivated by reducing it when applying design.

In response to arguments about the motivation of cost-effectiveness, the Examiner also maintains the motivation. While the Applicant argues that the consumer market affect would not be important to casino slot machines and that the project cost advantages for products other than slot machines does not provide a sufficient suggestion, the Examiner respectfully disagrees. The Examiner asserts that it is known in casino management that cost is important

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to a casino because the lower the overhead, the higher the profits. Thus sufficient motivation would be provided to use FOLED as opposed to most flat panel displays in order to reduce cost as disclosed by FOLED. Regarding the Applicant's argument that there is no support for such and the mere possibility would not motivate a skilled artisan, the Examiner respectfully disagrees. The casino industry is such highly competitive and the games have a short shelf life. Thus, future design and consideration is a huge part of design and would most definitely motivate a skilled artisan, as the gaming industry looks further into the future to develop successful machines.

In response to arguments about the motivation of power consumption, the Examiner also maintains the motivation. While the Applicant argues that the casino would not be concerned with a low voltage LCD to support power consumption, the Examiner disagrees. Power consumption would again, as disclosed above, represent overhead to the casino and any reduction in such overhead would be beneficial and thus desirable. One of ordinary skill in the art would understand the advantages and benefits of drawing a lesser amount of power and thus would be motivated to use provisions which allow such. While the Examiner agrees that casino owner will spend exorbitant amounts of money to attract players with flashy lights, etc., the Examiner maintains still this does not support that a casino owner would thus frown on any power saving products. A penny saved is a penny earned and just because the casino uses flashy displays does not detract from the fact that it would be advantageous to save power money wherever possible as so much is already being spent on it.

In summary, changing the flexible display of a Griswold would be a design choice, motivated by the wants and needs of the ordinarily skilled artisan. Substituting in other well-known technologies that are also flexible displays as a replacement to the flexible display of Griswold would be obvious to a skilled artisan. For the reasons and motivations disclosed

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above as well as the arguments addressed, the Examiner maintains that the incorporation of a known technology into a different context (which uses similar means) is an obvious alteration to the system.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Marks whose telephone number is (703)-305-7497. The examiner can normally be reached on Monday - Thursday (7:30AM - 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa J Walberg can be reached on (703)-308-1327. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
cmm  
April 21, 2004

  
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